

REMARKS

Claims 6-10 and 16-25 are pending and under consideration in the above-captioned application. Claims 6 and 16 have been amended herein in order to more clearly define and fully protect Applicant's invention. Allowance of all pending claims is believed appropriate and is respectfully requested.

Rejection Under 35 U.S.C. §112

The Office Action rejects claims 6 and 16, as clarification of the size requirements for the unexpanded graphite flake is requested. The statement in the Office Action that "30% by weight of the graphite flake does not pass thorough an 80 mesh screen" is correct, and claims 6 and 16 have been amended to more clearly express this limitation. Withdrawal of this rejection is, therefore, appropriate and requested.

Prior Art Rejections

All claims 6-10 and 16-25 of the above-captioned application stand rejected under 35 U.S.C. §103 over Mercuri (U.S. Patent No. 6,017,633), in view of Mercuri (U.S. Patent No. 6,087,034). However, since the cited Mercuri patents do not suggest the invention of the rejected claims, especially as amended, withdrawal of these rejections is appropriate.

The Section 103 rejection is based first upon incorrect assumptions concerning of the disclosures of the cited patents. The fine treated flake of the above-captioned application is a component of the treated flake all of which is exfoliated and formed into the article. The fine treated flake of the '633 patent is a component of the article and not exfoliated in manufacture of the article.

Moreover, the moisture content of the fine treated flake of the above-captioned application is specified to insure the maximum exfoliate volume of the component for the greatest effect upon the conductivity of the article formed by the inventive process. The fine treated flake of the '633 patent is of specified moisture content to insure maximum stability of the treated flake encapsulated in the article.

Regarding claims 8 and 18, the claimed limitation is to insure maximum exfoliation of the fine component; what is taught in '633 patent -- "about 1%" -- is not equivalent.

Regarding claims 9 and 10, the channels disclosed in the '034 patent are the result of porosity associated with the inability of the exfoliate to fill around the needle like additive dispersed in the sheet, they are not formed, cannot be placed by design nor varied in size as claimed in the above-captioned application. The cited patent teaches that additional additives will result in additional passages: they are not formed or placed by design nor can they be sized by design. The '633 patent

teaches an article with incorporated fine treated flake the purpose of which is to expand during the use of the article. The above-captioned application teaches an article which includes exfoliated fine treated flake for the purpose of greatly altering the conductivity of the article.

Regarding claims 16-20, once again the fine treated flake of the article of the '633 patent is not exfoliated nor does it result in a favorable modification in conductivity of the article. Its use is for a specific sealing gasket. The purpose of the exfoliated fine treated flake of the invention of the above-captioned application is to modify the article conductivity. Though the vocabulary of the '633 patent and the above-captioned application are similar, the articles produced are not. The addition of finest intercalated graphite flake in the cited patent, particularly as high moisture content results in article which degrades more readily in storage, and finest flake results in an article where a lower percentage of the included flake is satisfactorily encapsulated in the matrix, the article is less suitable in use. For the claimed invention herein the finest exfoliated treated flake is suitably incorporated into the article and adds the value of conductivity enhancement. The purpose of the invention of the '034 patent is to provide transverse passages in the article but in no way can they be positioned or modified in size or distribution.

Regarding claims 19 and 20, the Section 103 rejection is based on the assumption that the article produced in the '633 patent is similar to the article in

the rejected claims; in fact, the '633 patent related to an article for use in a specialized gasket and includes a significant percentage of un-exfoliated and treated natural graphite flake. Contrariwise, the article of the rejected claims is 100% exfoliated flake and would have no special advantages as a gasket; the advantage is one of modified conductivity. In trying to add formed transverse channels to those resulting from additive of the '034 patent, deformation results in lessening the effect of the fibers because the matrix is crushed to a higher density and as a result there is less flow through the matrix.

Regarding claims 21 - 25, distinctions noted above apply.

Accordingly, since the two Mercuri patents, even if combined, do not render obvious the invention of claims 6-10 and 16-25, reconsideration and allowance of all pending claims is appropriate and requested.

CONCLUSION

Based on the foregoing amendments and remarks, it is believed that allowance of all pending claims 6-10 and 16-25 is appropriate. Such action is earnestly sought. If there remains any matter which prevents the allowance of any of these claims, the Examiner is requested to call the undersigned collect at 615.242.2400 to arrange for an interview which may expedite prosecution.

Respectfully submitted,



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